IB Docket 11-109

Department of Biological and Agricultural Engineering
"Bringing Engineering to Life"

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To Whom It May Concern:

I have followed with great interest the issues involving the proposal from LightSquared, a communications company, to erect a network of ground transmission stations across the country. The purpose of these stations would be to enhance nationwide coverage of wireless broadband. While enhanced wireless broadband coverage may be desirable, the current proposal is likely to cause extensive interruption of the Global Positioning System (GPS) signals that we have come to rely on so heavily. GPS has become an essential utility in precision agriculture, commercial fishing, personal navigation devices, and emergency services.

Test results have clearly shown significant interference from the proposed ground transmission stations in the GPS frequency band. The signals from these ground transmitters would vastly overpower the relatively weak GPS signal. Filters to minimize these effects either do not exist or would at very least be cost prohibitive to retrofit on the millions of GPS receivers currently in use. GPS technology has proven to be highly reliable. I currently use receivers that are over 10 years old and they perform extremely well. It is not acceptable to assume that attrition will quickly replace older receivers with ones potentially immune to these more powerful ground based signals. Even Lightsquared's proposal to use a lower frequency has not been proven to be a viable alternative.

It is imperative that we do everything possible to protect and preserve access to GPS signals and the advantages they offer us in agriculture and other industries. Unless it can be proven that LightSquared's transmissions cause absolutely no interference with current GPS signals and the receivers that rely on them, the LightSquared transmissions must not be allowed.

Sincerely;

Gary T Roberson

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Associate Professor and Extension Specialist